UNITED STATES PATENT AND TRADEMARK OFFICE

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ART UNIT	PAPER NUMBER
2453	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/787,337	TODD ET AL.
	Examiner	Art Unit	
	TARIQ S. NAJEE-ULLAH	2453	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>24 February 2011</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-12,14-32,34-54,56-71,73-88,90-108 and 110-116</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-12,14-32,34-54,56-71,73-88,90-108 and 110-116</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This is the Office action in response to the amendment filed February 24. 2011.

Claims 1, 21-32, 34-40, 63, 80-88 and 90-96. Claims 1-12, 14-32, 34-54, 56-71, 73-88,

90-109 and 110-116 are pending.

Response to Arguments

2.   Regarding the rejections under 35 U.S.C. 101, claims 21-32, 34-40, 80-88 and

90-96 have been amended to set forth a "tangible computer readable medium."

However, the specification as originally filed does not explicitly define the tangible

computer readable medium. There is no explicit or limiting definition of the term

"tangible computer readable medium" in the original disclosure. The United States

Patent and Trademark Office (USPTO) is obliged to give claims their broadest

reasonable interpretation consistent with the specification during proceedings before the

USPTO. *See In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the

pending claims must be interpreted as broadly as their terms reasonably allow). The

broadest reasonable interpretation of a claim drawn to a **tangible computer readable**

media (also called machine readable medium and other such variations) typically

covers forms of non-transitory tangible media and transitory propagating signals *per se*

in view of the ordinary and customary meaning of computer readable media, particularly

when the specification is absent an explicit definition or is silent. *See* MPEP 2111.01.

When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim

must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. *See*

In re Nuijten, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not

directed to statutory subject matter) and *Interim Examination Instructions for Evaluating*

Subject Matter Eligibility Under 35 U.S.C. § 101, Aug. 24, 2009; p. 2.

3.   Applicant's arguments filed December 3, 2010 with respect to prior art rejections

of the claims rejected under 35 U.S.C. 103(a) have been fully considered but they are

not persuasive. Applicant argues that Nakayama fails to disclose or suggest the use of

"a content address that is based, at least in part, upon at least a portion of the content of

the unit of data" (Amendment filed December 3, 2010; pg. 22-24). Applicant further

presented arguments during an interview dated January 18, 2011. Specifically,

applicant wanted to ensure that all limitations from claims 41 and 97 were given

patentable weight, specifically the limitations "...to locate a unit of data on at least one

of a plurality of storage clusters in a storage environment in which the unit of data is

accessible by a content address that is based, at least in part, upon at least a portion of

the content of the unit of data, and at least one controller, coupled to the input, that:

receives the request from the input; and in response to receipt of the request,

determines on which of the plurality of storage clusters the unit of data is stored based

on the content address of the unit of data."

4.   Examiner respectfully disagrees with applicant's arguments. Examiner

previously cited Nakayama paragraph 85 as teaching the aforementioned limitation.

This reasoning was based on the language from the applicant's specification ("...in a

content-addressable storage environment, data is stored using a content address
generated based upon the content of the data itself. The content address may be
generated by applying a hash function to the data to be stored. The output of the hash
function may be used as at least part of the content address used in communication
between the host and storage environment to refer to the data. The content address can
be mapped (e.g., within the storage environment) to one or more physical storage
locations within the storage environment;" see published specification, paragraph 54).
As now amended, Examiner relies upon other areas of Nakayama that clearly and
explicitly teach the claimed limitation. Nakayama teaches a guarantee code that is
produced based on data received from the host computer (Nakayama, par. 9-10). More
specifically, the guarantee code is based upon an attribute of the data received from the
host computer which is the logical address and error correction information stored at
this address (Nakayama, par. 22-26, 30-33, 45-47). The local guarantee code is used
to determine where the data and remote guarantee code should be stored (Nakayama,
par. 45-47). Examiner believes this maps clearly and explicitly to the claim limitations in
question. Examiner maintains previous rejection.

Claim Rejections - 35 USC § 101

5.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

6.   Claims 21-32, 34-40, 80-88 and 90-96 are rejected under 35 U.S.C. 101 because
the claimed invention is directed to non-statutory subject matter.

Claims 21-32, 34-40, 80-88 and 90-96 set forth a "tangible computer readable medium."

However, the specification as originally filed does not explicitly define the tangible

computer readable medium. There is no explicit or limiting definition of the term

"tangible computer readable medium" in the original disclosure. The United States

Patent and Trademark Office (USPTO) is obliged to give claims their broadest

reasonable interpretation consistent with the specification during proceedings before the

USPTO. *See In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the

pending claims must be interpreted as broadly as their terms reasonably allow). The

broadest reasonable interpretation of a claim drawn to a **tangible computer readable**

media (also called machine readable medium and other such variations) typically

covers forms of non-transitory tangible media and transitory propagating signals *per se*

in view of the ordinary and customary meaning of computer readable media, particularly

when the specification is absent an explicit definition or is silent. *See* MPEP 2111.01.

When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim

must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. *See*

In re Nuijten, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not

directed to statutory subject matter) and *Interim Examination Instructions for Evaluating*

Subject Matter Eligibility Under 35 U.S.C. § 101, Aug. 24, 2009; p. 2.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-12, 14-32, 34-54, 56-67, 69-71, 73-84, 86-88, 90-104, 106-109 and

110-116 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent

Number 6,173,374 to Heil et al (Heil hereinafter) in view of US 2005/0005066 to

Nakayama et al (Nakayama hereinafter).

        Regarding claims 1, 21, 63, and 80, Heil discloses **receiving a request from a**

host computer to locate the unit of data previously stored in the storage

environment (Heil, fig. 3, step 400 shows an incoming request)**; and in response to**

receipt of the request, determining on which one of the plurality of storage

clusters the unit of data is stored (Heil, fig. 3 shows a flowchart of how incoming

requests are processed. In step 410, it is determined whether the unit of data

requested is available on the local data disks or not. If the data requested is not on the

local drives, the request is shipped to remote disks in the storage cluster) **based on the**

content address of the unit of data.

        Heil does not explicitly teach storing **wherein the request identifies the unit of**

data via a content address that is based, at least in part, upon at least a portion of

**the content of the unit of data; **based on the content address of the unit of data.

Nakayama teaches storing **wherein the request identifies the unit of data via a**

content address that is based, at least in part, upon at least a portion of the

**content of the unit of data **(Nakayama ¶85; the storage environment is a content

addressable storage environment storing data units in a content addressable manner;

Nakayama, par. 22-26, 30-33, 45-47)**; based on the content address of the unit of**

data (Nakayama ¶85; the storage environment is a content addressable storage

environment storing data units in a content addressable manner; Nakayama, par. 22-26,

30-33, 45-47)**.** To provide the system and method of Heil with the added functionality of

storing data in a content addressable manner would have been obvious to one of

ordinary skill in the art, in view of the teachings of Nakayama, since all the claimed

elements were known in the prior art and one skilled in the art could have combined the

elements as claimed by known methods with no change in their respective functions,

and the combination would have yielded nothing more than predictable results to one of

ordinary skill in the art at the time of the invention.

Regarding claims 41 and 97, Heil discloses **an input that receives a request**

from a host computer to locate a unit of data on at least one of a plurality of

storage clusters in a storage environment (Heil, fig. 3, step 400 shows an incoming

request)**, and at least one controller, coupled to the input, that: receives the**

request from the input (Heil, fig. 2 shows the node, i.e. controller that is coupled to the

network fibre channel backbone. Fig. 3, step 400 shows an incoming request to the

node.)**; and in response to receipt of the request, determines on which of the**

plurality of storage clusters the unit of data is stored (Heil, fig. 3 shows a flowchart

of how incoming requests are processed. In step 410, it is determined whether the unit

of data requested is available on the local data disks or not. If the data requested is not

on the local drives, the request is shipped to remote disks in the storage cluster).

Heil does not explicitly teach storing **based on the content address of the unit of data.** Nakayama teaches storing **based on the content address of the unit of data** (Nakayama ¶85; the storage environment is a content addressable storage environment storing data units in a content addressable manner). To provide the system and method of Heil with the added functionality of storing data in a content addressable manner would have been obvious to one of ordinary skill in the art, in view of the teachings of Nakayama, since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention.

Regarding claims 2, 22, 64, and 81, Heil-Nakayama discloses the invention substantially as described in claims 1, 21, 63, and 80 above including, **wherein the host computer executes an application program that stores data to and retrieves data from the storage environment** (Heil, col. 3, lines 30-48)**, wherein the host further executes an application programming interface that interfaces the application program to the storage environment, and wherein the act of receiving is performed by the application programming interface** (Heil, col. 3, lines 30-48)**.**

Regarding claims 3, 23, 65, and 82, Heil-Nakayama discloses the invention substantially as described in claims 1, 21, 63, and 80 above including, **wherein the storage environment is coupled to the host computer by at least one communication link** (Heil, figs. 1-2)**, wherein the host computer, the storage**

environment, and the at least one communication link form a computer system
(Heil, figs. 1-2)**, wherein the computer system includes an appliance that monitors
access requests from the host computer** (Heil, fig. 3)**, and wherein the act of
receiving the request further comprises an act of receiving, at the appliance, the
request from the application** (Heil, fig. 3; col. 3, lines 30-48)**.**

Regarding claims 4 and 24, Heil-Nakayama discloses the invention substantially
as described in claims 3 and 23 above including, **wherein the act of determining is
performed by the appliance** (Heil, fig. 4A, step 502)**.**

Regarding claims 5, 25, 66, and 83, Heil-Nakayama discloses the invention
substantially as described in claims 1, 21, 63, and 80 above including, **wherein the
host computer executes an application program that stores data on the storage
environment** (Heil, fig. 3; col. 3, lines 30-48)**, and wherein the act of receiving the
request further comprises an act of receiving the request directly from the
application program** (Heil, fig. 3; col. 3, lines 30-48)**.**

Regarding claims 6, 26, 67, and 84, Heil-Nakayama discloses the invention
substantially as described in claims 4, 23, 66, and 83 above including, **wherein the act
of receiving the request further comprises an act of receiving the request at least
one of the plurality of storage clusters** (Heil, figs. 2-3)**.**

Regarding claims 7, 27, and 49, Heil-Nakayama discloses the invention
substantially as described in claims 6, 26, and 48 above including, **wherein the at least
one of the plurality of storage clusters includes at least one access node that
receives and processes access requests** (Heil, figs. 1-2)**, and wherein the act of**

receiving the request from the application program at the at least one of the plurality of storage clusters further comprises an act of receiving the request at the at least one access node (Heil, fig. 2 shows where the requests are received at the node, figs. 3-4C describe the steps of receiving a request.)**.**

Regarding claims 8, 28, and 50, Heil-Nakayama discloses the invention substantially as described in claims 1, 21, and 41 above including, **wherein the act of determining comprises an act of performing a search for the unit of data on the plurality of storage clusters** (Heil; figs. 4A-4D; col. 4, lines 7-20)**.**

Regarding claims 9, 29, and 51, Heil-Nakayama discloses the invention substantially as described in claims 8, 28, and 50 above including, **wherein the act of performing a search for the unit of data further comprises an act of performing the search serially through the plurality of storage clusters until the unit of data is found** (Heil; figs. 4A-4D; col. 4, lines 7-20)**.**

Regarding claims 10, 30, and 52, Heil-Nakayama discloses the invention substantially as described in claims 8, 28, and 50 above including, **wherein the act of performing a search for the unit of data further comprises an act of performing the search** (Heil; figs. 4A-4D; col. 4, lines 7-20) **on each of the plurality of storage clusters in parallel** (Heil; col. 1, lines 44-45; col. 2, lines 16-22)**.**

Regarding claims 11, 31, and 53, Heil-Nakayama discloses the invention substantially as described in claims 1, 21, and 41 above including, **wherein the act of determining is performed by at least one of the plurality of storage clusters** (Heil, fig. 3, fig. 4A, step 502)**.**

Regarding claims 12, 32, and 54, Heil-Nakayama discloses the invention substantially as described in claims 1, 21, and 41 above including, **wherein the act of determining comprises locating the unit of data on at least one of the plurality of storage clusters without performing a search** (Heil; col. 4, lines 54-57, polls may be conducted instead of searches.)**.**

Regarding claims 14, 34, and 56, Heil-Nakayama discloses the invention substantially as described in claims 1, 33, and 55 above including, **wherein the content address includes time information, based on when the unit of data was stored in the storage environment** (Heil, col. 12, lines 19-59)**, and the act of determining** (Heil, fig. 3, figs. 4A-4C) **comprises an act of determining on which of the plurality of storage clusters the unit of data is stored based, at least in part, on the time information of the content address of the unit of data** (Heil, col. 12, lines 19-59)**.**

Regarding claims 15, 35, and 57, Heil-Nakayama discloses the invention substantially as described in claims 14, 34, and 56 above including, **wherein the act of determining further comprises an act of determining on which of the plurality of storage clusters the unit of data is stored based** (Heil, fig. 3, figs. 4A-4C)**, at least in part, on a hash value of the time information of the content address of the unit of data** (Heil, col.13, lines 11-13)**.**

Regarding claims 16, 36, 58, 75, 91 and 112, Heil-Nakayama discloses the invention substantially as described in claims 13, 33, 57, 72, 90 and 109 above including, **wherein the content address** (Heil, col. 8, lines 29-31) **includes a guaranteed unique identifier (GUID)** (Heil, col. 8, lines 29-30, unique addresses, i.e.

guaranteed unique identifier**), and wherein the act of determining further comprises an act of determining** (Heil, fig. 3, figs. 4A-4C) **on which of the plurality of storage clusters the unit of data is stored based, at least in part, on the GUID** (Heil, col. 8, lines 29-30, unique addresses, i.e. guaranteed unique identifier)**.**

Regarding claims 17, 37, 59, 76, 93 and 113, Heil-Nakayama discloses the invention substantially as described in claims 16, 36, 58, 75, 91 and 112 above including, **wherein the act of determining** (Heil, fig. 3, figs. 4A-4C) **further comprises an act of determining on which of the plurality of storage clusters the unit of data is stored based, at least in part, on a hash** (Heil, col.13, lines 11-13) **of the GUID** (Heil, col. 8, lines 29-30, unique addresses, i.e. guaranteed unique identifier)**.**

Regarding claims 18, 38, 60, 77, and 94, Heil-Nakayama discloses the invention substantially as described in claims 13, 33, 55, 72, and 89 above including, **wherein the act of determining** (Heil, fig. 3, figs. 4A-4C) **further comprises acts of: accessing information that specifies an algorithm that was used to select on which of the plurality of storage clusters the unit of data was stored, based on the content address of the unit of data** (Heil, col.13, lines 4-14)**; and applying the algorithm to the content address of the unit of data to determine on which of the plurality of storage clusters the unit of data is stored** (Heil, col.13, lines 4-14)**.**

Regarding claims 19, 39, 61, 78, 95 and 115, Heil-Nakayama discloses the invention substantially as described in claims 18, 38, 60, 77, 94 and 114 above including, **wherein the information specifies a plurality of algorithms used by the**

storage environment and during which period of time each of the plurality of **algorithms was used to store units of data** (Heil, col.13, lines 4-14).

Regarding claims 20, 40, and 62, Heil-Nakayama discloses the invention substantially as described in claims 19, 39, and 61 above including, **wherein the information further specifies, for each one of the plurality of algorithms, at least one storage cluster that was in the storage environment during the period of time when the one of the plurality of algorithms was in effect** (Heil, col.13, lines 4-14).

Regarding claims 42 and 98, Heil-Nakayama discloses the invention substantially as described in claims 41 and 97 above including, **the host computer that accesses data stored in the storage environment** (Heil, figs. 1-2; col. 1, lines 9-14)**; and a communication link that couples the host computer to the storage environment to form a computer system** (Heil, figs. 1-2; col. 1, lines 9-14).

Regarding claims 43 and 99, Heil-Nakayama discloses the invention substantially as described in claims 42 and 98 above including, **wherein the at least one controller is disposed in the host computer** (Heil, figs. 1-2).

Regarding claims 44 and 100, Heil-Nakayama discloses the invention substantially as described in claims 42 and 98 above including, **wherein the at least one controller is disposed in the storage environment** (Heil, figs. 1-2).

Regarding claims 45 and 101, Heil-Nakayama discloses the invention substantially as described in claims 42 and 98 above including, **wherein the at least one controller is disposed in between the storage environment and the host**

computer in an appliance that monitors access requests from the host computer to the storage environment (Heil, figs. 1-2).

Regarding claims 46 and 102, Heil-Nakayama discloses the invention substantially as described in claims 41 and 99 above including, **wherein the host computer executes an application program that stores data to and retrieves data from the storage environment** (Heil, figs. 1-3; col. 1, lines 9-14)**, wherein the host further executes an application programming interface that interfaces the application program to the storage environment** (Heil, figs. 1-3; col. 1, lines 9-14)**, and wherein the at least one controller receives the request at the application programming interface** (Heil, figs. 1-3; col. 1, lines 9-14).

Regarding claims 47 and 103, Heil-Nakayama discloses the invention substantially as described in claims 41 and 97 above including, **wherein the host computer executes an application program that stores data in the storage environment** (Heil, figs. 1-3; col. 1, lines 9-14; col. 3, lines 30-48)**, and wherein the at least one controller receives the request directly from the application program** (Heil, figs. 1-3; col. 1, lines 9-14; col. 3, lines 30-48).

Regarding claims 48 and 104, Heil-Nakayama discloses the invention substantially as described in claims 44 and 100 above including, **wherein the apparatus is disposed in at least one of the plurality of storage clusters** (Heil, figs. 1-2).

Regarding claims 69, 87, and 107, Heil-Nakayama discloses the invention substantially as described in claims 63, 80, and 97 above including, **wherein the act of**

selecting further comprises an act of selecting one of the plurality of storage

clusters to store the unit of data based on a load of at least one of the plurality of

storage clusters (Heil, col. 1, lines 24-36).

Regarding claims 70, 86, and 106, Heil-Nakayama discloses the invention

substantially as described in claims 63, 80, and 97 above including, **wherein the act of**

selecting further comprises an act of selecting one of the plurality of storage

clusters to store the unit of data based, at least in part, on an available storage

capacity of each of the plurality of storage clusters (Heil, col. 1, lines 24-36).

Regarding claims 71, 88, and 108, Heil-Nakayama discloses the invention

substantially as described in claims 63, 80, and 97 above including, **wherein the act of**

selecting further comprises an act of selecting one of the plurality of storage

clusters to store the unit of data based on a size of the unit of data (Heil, col. 1,

lines 24-36).

Regarding claims 73, 90, and 110, Heil-Nakayama discloses the invention

substantially as described in claims 63, 80, and 97 above including, **wherein the**

content address includes time information, based on when the unit of data was

stored in the storage environment (Heil, col. 12, lines 19-59)**, and the act of**

selecting comprises an act of selecting one of the plurality of storage clusters to

store the unit of data based, at least in part, on the time information of the content

address of the unit of data (Heil, col.13, lines 11-13).

Regarding claims 74, 91, and 111, Heil-Nakayama discloses the invention

substantially as described in claims 73, 90, and 110 above including, **wherein the act**

of selecting further comprises an act of selecting one of the plurality of storage

clusters to store the unit of data based, at least in part (Heil, col. 12, lines 19-59),

on a hash value of the time information of the content address of the unit of data

(Heil, col.13, lines 11-13).

Regarding claims 79, 96, and 116, Heil-Nakayama discloses the invention

substantially as described in claims 63, 80, and 97 above including, **storing the unit of**

data on the selected one of the plurality of clusters (Heil, fig. 3, col. 3, lines 30-48).

Regarding claim 114, Heil-Nakayama discloses the invention substantially as

described in claims 109 above including, **wherein the at least one controller: applies**

an algorithm to the content address of the unit of data to determine on which of

the plurality of storage clusters to store the unit of data (Heil, col.13, lines 4-14);

and stores the algorithm in a record that indicates a time frame in which the

algorithm was in use (Heil, col.13, lines 4-14).

6.   Claims 68, 85, and 105 rejected under 35 U.S.C. 103(a) as being unpatentable

over Heil-Nakayama as applied to claims 63, 80, and 97 above, and further in view of

US Patent Number 5,428,796 to Iskiyan et al (Iskiyan hereinafter).

Regarding claims 68, 85, and 105, Heil-Nakayama discloses the invention

substantially as described in claims 63, 80, and 97 above including **wherein the act of**

selecting further comprises an act of selecting one of the plurality of storage

clusters to store the unit of data (Heil, fig. 3, col. 3, lines 30-48). Iskiyan teaches

using a round-robin technique (Iskiyan, col. 8, lines 44-47). Heil-Nakayama does not

explicitly teach storing **using a round-robin technique.** Iskiyan teaches **using a round-robin technique.** To provide the combination of Heil-Nakayama with added functionality of using a round-robin technique would have been obvious to one of ordinary skill in the art, in view of the teachings of Iskiyan, since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US 7,313,666 to Saminda De Silva et al.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to TARIQ S. NAJEE-ULLAH whose telephone number is (571)270-5013. The examiner can normally be reached on Monday through Thursday 8:00 - 6:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Krista Zele can be reached on (571) 272-7288. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. S. N./
Examiner, Art Unit 2453
April 4, 2011

/Krista M. Zele/
Supervisory Patent Examiner, Art Unit 2453